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Original Articles.

THE CLINICAL IMPORTANCE OF ANATOMICAL ANOMALIES IN BILIARY SURGERY.*

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A FEW years ago the majority of surgeons felt that the occurrence of congenital changes such as malformations, malpositions, and variations in blood supply of the abdominal viscera, was a negligible factor in operations. The intensive development, however, of certain fields of abdominal surgery such as those of the biliary and urinary tracts have made it absolutely necessary for the surgeon to be familiar with every possible alteration of congenital origin in order to avoid errors in diagnosis and operative technic.

The increase in the number of operations for the removal of the gall-bladder has been accompanied by the report of many accidents due to anomalies of the bile ducts and blood vessels of the region. The occurrence of such variations receives either no mention at all or only a brief one in nearly all of our standard works of anatomy and even in those of operative surgery.

* Read at the February 2, 1920, meeting of the Boston Surgical Society, and at the February 3, 1920, meeting of the Harvard Medical Society, Boston.

The medical student of today is still taught that there are two bile ducts, one from each lobe, which join close to the liver hilus to form the common hepatic duct and this is joined shortly by the cystic duct at an acute angle; that the common duct is a single structure which is formed by the union of the main hepatic and the cystic ducts. Again we have been and still are taught that the cystic artery is a single vessel having its origin from the right hepatic artery shortly after the latter passes behind the main hepatic duct.

The common duct is described as being sufficiently devoid of large blood vessels on the anterior surface of its supraduodenal segment to permit of easy access through an incision in this portion as the operation of choice in the removal of calculi from the common duct.

If the above teaching were correct in 100% (or even nearly so) of the individuals operated upon, the surgeon would not encounter any special difficulties in technic, but recent anatomical studies by Ruge,[1] Kunze,[2] Descomps,[3] Rio Branco,[4] Behrend,[5] and myself,[6] have shown that *a*, the normal angular mode of union of the cystic and hepatic ducts is only present in 75%; *b*, that the cystic artery is a single structure and has its generally accepted origin in only about

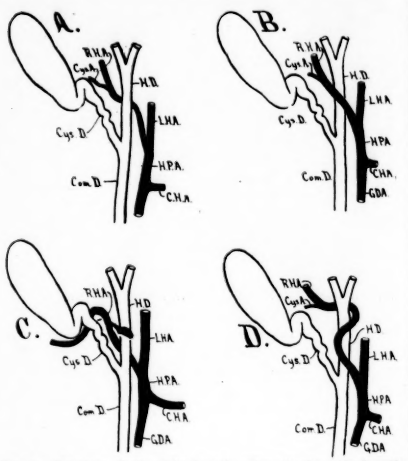

FIG. 1.—Relations of the right hepatic artery to the main hepatic duct.

A. In 70% the right hepatic artery runs behind the main hepatic duct and the cystic artery arises just beyond right edge of duct.

B. In 12% the right hepatic artery passes across front of main hepatic duct before entering right lobe of the liver.

C. In 10% the right hepatic artery runs parallel to the cystic duct throughout its course and lies in close proximity to the neck of the gallbladder before entering right lobe of liver. Artery could be easily injured during cholecystectomy.

D. In 8% the right hepatic artery passes across right edge of the main hepatic duct and then enters liver or forms a ring around the hepatic duct.

The same abbreviations are used to indicate structures in Figs. 1 to 8: R.H.A., right hepatic artery; L.H.A., left hepatic artery; H.P.A., main hepatic artery; C.H.A., common hepatic trunk; G.D.A., gastroduodenal artery; Cys. A., cystic artery; H.D., main hepatic duct; Cys. D., cystic duct; Com. D., common duct.

88%; and *c*, that there are two cystic arteries in 12% of individuals.

You will readily understand why accidents can occur through lack of knowledge of these and similar facts. Jacobson,[7] and Eliot,[8] up to 1918, collected reports of 33 accidents to the ducts during operations on the biliary tract, and I have been able to find 12 more published since the appearance of the above papers.

Let us first review our present information in regard to anomalies of the blood vessels, aided by a study of the accompanying illustrations (Figs. 1 to 7).

Section 1. Variations in the relation of the right hepatic artery to the main hepatic duct.

1A. Normal course. In 70% of individuals, the artery passes beneath the main hepatic duct (Fig. 1) and gives off the cystic artery shortly after it reaches the right edge of the hepatic duct. There is very little danger of wounding such an artery during a cholecystectomy. The possibility of the retraction of the stump of the cystic artery behind the hepatic duct will be readily understood. It is advisable for this reason to ligate the cystic artery as close as possible to the neck of the gall-bladder. I shall refer in the third section to the need of not pulling too hard on the stump of the cystic artery. If it slips out of the grasp of the forceps or the ligature cuts through, the hepatic artery will retract, with its bleeding cystic stump behind the hepatic duct, and the latter be included in the blades of the forceps during the effort to control the hemorrhage.

1B. In 12% the right hepatic artery crosses the anterior instead of the posterior surface of the hepatic duct and then gives off the cystic artery (Fig. 1).

1C. In 10% the right hepatic artery runs parallel to the cystic duct (Fig. 1) and may be easily injured while freeing the cystic duct during cholecystectomy.

1D. In 8% the right hepatic artery arches far beyond the right border of the hepatic duct and then enters the right lobe of the liver as in one of my specimens, or the artery forms a ring (Fig. 1) around the duct. Either variation in-

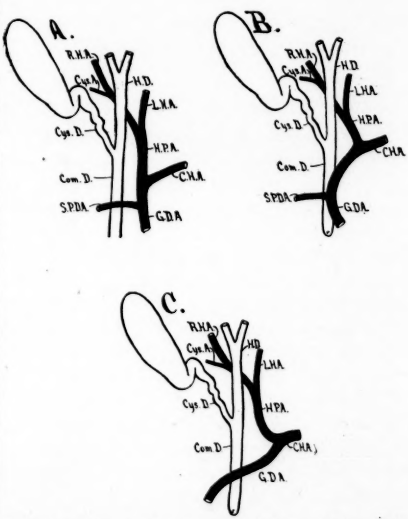

FIG. 2.—Variations of the gastroduodenal artery in relation to the common duct.

A. In 76% a branch of the gastroduodenal artery crosses the common duct.

B. In 38% the gastroduodenal artery arches across the left border of the common duct.

C. In 20% the gastroduodenal artery itself passes across front of common duct.

vites severe hemorrhage during either cholecystectomy or choledochotomy if the vessel receives a tangential injury.

Section 2. Variations of the gastroduodenal artery. These are of especial importance in operations on the common duct but may also be of equal interest if as shown in Section 3, the only cystic artery arises from the gastroduodenal or as in Section 5, such an anomalous vessel constitutes one of two cystic arteries.

2A. In 42%, a relatively large (Fig. 2) branch of the gastroduodenal, *viz.* the superior pancreatic-duodenal artery, crosses the common duct where the latter lies behind the duodenum. I have recently encountered this variation during a choledochotomy and avoided a severe hemorrhage by a knowledge of its presence.

2B. In 38%, the main gastroduodenal artery (Fig. 2) projects more or less over the left edge of the common duct in its retroduodenal portion.

2C. In 20%, the main gastroduodenal artery (Fig. 2) crosses the anterior aspect of the retroduodenal portion of the common duct.

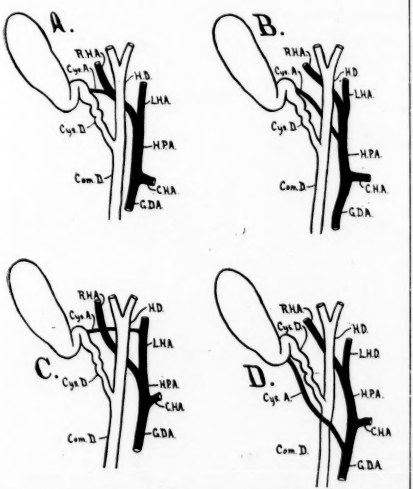

FIG. 3.—Anomalies in the origin of the single cystic artery.
A. There is only one cystic artery in 88% of individuals. In 82% of these it arises from the right hepatic artery.
B. In 3% of the 88% the cystic artery arises from the main hepatic.
C. In 2% of the 88% the cystic artery arises from the left hepatic.
D. In 1% of the 88% the cystic artery arises from the gastroduodenal artery. This is a very important anomaly if the cystic artery is only looked for in its usual place, *i. e.*, arising from the right hepatic.

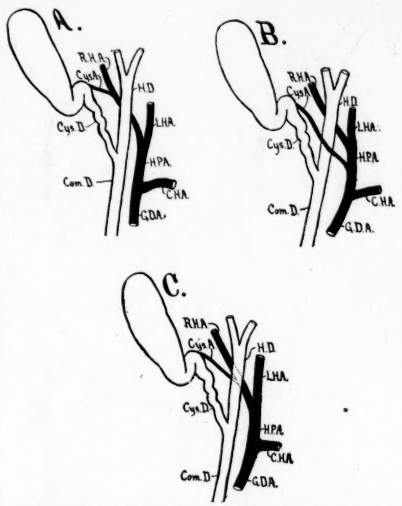

FIG. 4.—Relation of the single cystic artery to the main hepatic ducts.
A. In 71% the cystic artery arises to the right of the main hepatic duct.
B. In 27% the cystic artery arises on the left side of the hepatic duct or common duct and must cross one of these to reach neck of gallbladder.
C. In 2% the cystic artery arises behind the main hepatic duct and if it should be retracted, it is easy to include duct in grasp of forceps.

Section 3. Anomalies in origin of a single cystic artery.

There is only one cystic artery in 88% of individuals, while in 12% there are two such vessels (See Section 5).

3A. Normal course (Fig. 3). In 82.5% of the 88% the cystic artery arises from the right hepatic in the manner described in Section 1A.

3B. In 3% of the 88% of cases with a single cystic artery, the latter arises from the main hepatic artery (Fig. 3).

3C. In 2% of the 88% of cases with a single cystic artery (Fig. 3), this vessel arises from the left hepatic artery.

3D. In 1% of the 88% of cases with a single cystic artery (Fig. 3), the vessel arises from the gastroduodenal artery and crosses the common duct obliquely to reach the neck of the gallbladder.

The importance of this last named anomaly is far greater than those referred to in 3B and 3C. If one has clamped or ligated the pedicle in a cholecystectomy and was under the impression that the cystic artery had been included, a severe hemorrhage might occur, as in one of my

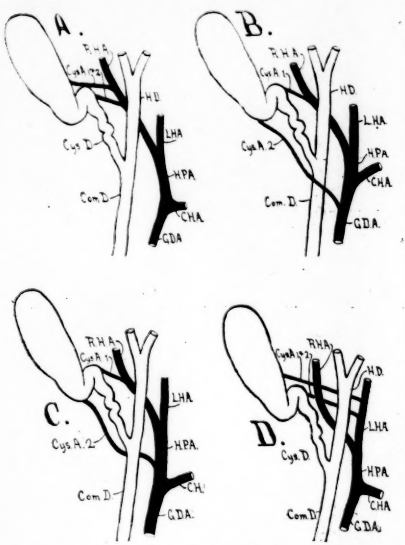

FIG. 5.—Various modes of origin of double cystic arteries.

A. In 8% of the cases having two cystic arteries, both vessels arise from the right hepatic artery.

B. In 2% one artery arises from the right hepatic and the other from the gastroduodenal artery.

C. In 1% one artery arises from the right hepatic and the other from the main hepatic (hepatica propria) artery.

D. In 1% both vessels arise from the right hepatic artery.

own cases, by overlooking such an anomalous vessel.

In 3B and 3C a retracting bleeding cystic artery stump may give considerable annoyance in searching for the vessel if one does not bear in mind such anomalous origins of the vessel.

Section 4. Relation of a single cystic artery to the main hepatic duct.

This is of the utmost importance in cholecystectomy especially if the operator attempts to ligate the cystic artery close to the hepatic duct. If the vessel should retract behind the duct while bleeding, it is easy to see how a blind thrust of the blades of an artery forceps could include the hepatic duct.

4A. In 71%, the cystic artery (Fig. 4) arises close to the right edge of the hepatic duct. This is generally taught to be the condition in every individual.

4B. In 27%, the cystic artery (Fig. 4) arises to the left of the hepatic duct and crosses its anterior surface to reach the neck of the gallbladder.

4C. In 2%, the artery arises (Fig. 4) from the right hepatic while the latter lies behind the hepatic duct. The retraction of such a vessel while bleeding offers a difficult problem to secure it for purposes of ligation without injury to the duct.

Section 5. Two cystic arteries. Rio Branco found this condition in 12% of his dissections, while Descomps believes that 18% is more accurate. At any rate, it occurs often enough to cause the surgeon to be on his guard and not to be satisfied with the ligation of one cystic artery until he has assured himself that a second one does not exist.

5A. In 8% of the 12%, both cystic arteries (Fig. 5) arise from the right hepatic.

5B. In 2% of the 12% (Fig. 5), one cystic arises from the right hepatic and the other from the gastroduodenal artery. This anomalous origin of the second vessel would seem to me to offer the greatest possibility of damage to the common or hepatic ducts in the effort to control bleeding.

5C. In 10% of the 12%, one artery (Fig. 5) arises from the right hepatic and the other from the main hepatic.

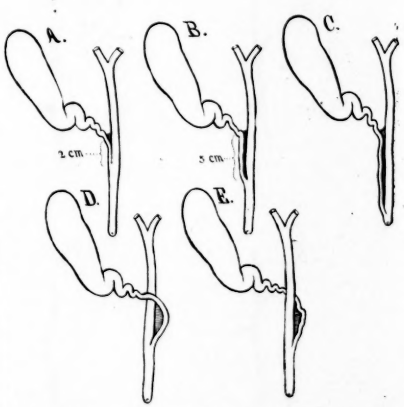

FIG. 6.—Variations in the mode of union of the cystic and main hepatic ducts.

A. Normal (75%) unite at acute angle. Terminal 2 cm. paralled and firmly held together by fibrous tissue.

B. Short parallel type. Parallel for 5 cm. or more as far as upper border of pancreas.

C. Long parallel type. Parallel almost throughout course, *i. e.*, to within ½—1 cm. from ampulla of Vater.

B. and *C.* together occurred in 17%.

D. and *E.* Anterior and posterior spiral types occurred in 8%. Note how cystic duct winds around anterior (or posterior) surface of the hepatic duct to enter its left border.

5D. In 10% of the 12%, both cystic arteries (Fig. 5) arise from the left hepatic.

Variations in the bile ducts.

These are of the utmost importance to the surgeon, but even the internist cannot afford to be ignorant of the presence of such anomalies, as I will try to show later. The pioneer in the investigation of this subject was E. Ruge in 1908, although a brief reference was made to parallelism of ducts by Delbet at a meeting of the Paris Surgical Society in 1905. Ruge reported the results of his examination of 43 bodies, and his observations were corroborated in the main by those of Kunze with 39, and Descomps with 50 examinations. In order to study the question upon a still larger scale, I examined the biliary tract in 100 autopsies at the Cook County Hospital and have reported my results in a previous paper. When compared with the results established by Ruge, Kunze, and Descomps, it will be seen that my observations agree most closely as to the frequency of the different types of

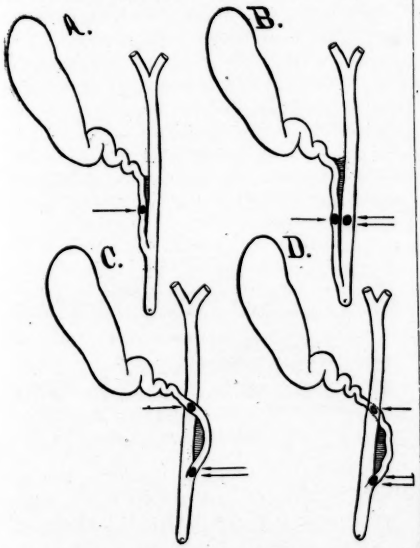

FIG. 7.—Possible locations of calculi in cases with anomalies of the mode of union of the cystic and hepatic ducts.

A. Calculus in cystic duct of short parallel type. Can compress hepatic duct and cause same symptom as calculus in that duct.

B. Calculi in long parallel type of ducts. Could cause great technical difficulty in removal, with possible injury of ducts.

C. Calculi in spiral cystic duct. Very puzzling clinical picture if one (single arrow) compressed hepatic duct and other obstructed a cystic duct (double arrow) emptying into hepatic duct on its left side.

D. Similar possibilities from clinical and operative standpoint as in *C*.

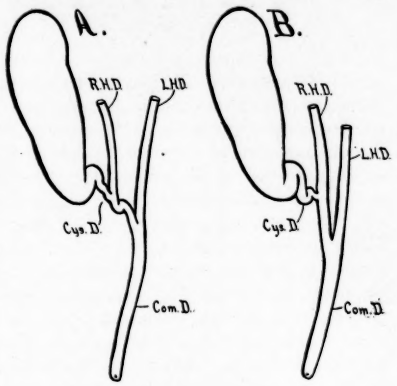

FIG. 8.—Anomalies in the right hepatic duct.

A. Right hepatic duct (R.H.D.) empties into the cystic duct (Cys. D.).

B. Cystic duct (Cys. D.) empties into the right hepatic duct (R.H.D.).

anomalies with those of Descomps. Kunze was not able to find any examples of the spiral type

FREQUENCY OF MODES OF UNION OF CYSTIC AND HEPATIC DUCTS.

TYPE OF UNION	NORMAL ANGULAR	PARALLEL	SPIRAL
Ruge*	14 (33%)	12 (29%)	16 (38%)
Kunze†	20 (51%)	19 (49%)	
Descomps‡ ...	40 (80%)	6 (12%)	4 (8%)
Eisendrath§ ..	75 (75%)	17 (17%)	8 (8%)

* 43 observations, † 39 observations, ‡ 50 observations, § 100 observations.

Let us now consider briefly these types in detail as well as other variations in the number and course of the extrahepatic bile ducts.

Section 6. Variations in the course and mode of union of the cystic and hepatic ducts.

6A. Normal angular type (Fig. 6). This is the mode of union which we have been accustomed to think existed in every human body. In view of the above observations by various investigators, we must be ready to drop the older conception in favor of the more recent one. The cystic unites with the main hepatic duct in approximately 75-80% of individuals at an acute angle and in its terminal portion the two ducts are most intimately held together by firm connective tissue for a distance of 2 cm., an observation already made by Poirier in 1896. Another fallacy which must be dropped is that it is possible to pass a probe through a normal cystic duct into the common duct unless the cystic duct has been artificially dilated by a stricture or calculus so that its

valves, which act normally as an obstruction to the probe, are flattened against the wall of the cystic duct.

6B. Parallel type. The cystic and hepatic ducts may run parallel to the upper border of the duodenum or even to the pancreas so that there is an absence of a supra or even of a retroduodenal portion of the common duct. To this brief course (usually about 5-7 cm.) of parallelism of the cystic and hepatic ducts (B in Fig. 6) I have applied the term "short parallel" to distinguish it from a much more extensive parallelism, the "long parallel," in which as some of my own specimens show, the cystic and hepatic ducts pursue a parallel course to within a short distance (⅛ cm.) from the ampulla of Vater (C in Fig. 6). An important fact from the standpoint of surgical technic is that the two ducts (both in the long and short parallel types) are held firmly together by strands of fibrous tissue. The parallel type occurs in about 17% of individuals.

6C. Spiral type. The cystic duct, instead of emptying into the hepatic duct on the right side of the latter, winds around it a quarter, half, three quarters or even a full circle. I found this variation in 8 of 100 bodies, and have applied the term anterior spiral (D in Fig. 6) to those cases in which the cystic passes across the front of the hepatic duct for one (C and D in Fig. 7) or more fourths of a circle. If the cystic duct (E in Fig. 6) winds around behind the hepatic duct, the term posterior spiral seems most applicable. This spiral type was found in relatively larger proportion by Ruge (16 in 43) than by either Descomps (4 in 50) or myself (8 in 100).

Clinical importance of the parallel and spiral types.

The intimate relations and anomalous course of the two (cystic and main hepatic) ducts in both of these variations explain some of the accidents which have occurred during both cholecystectomy and choledochotomy. Again one can see (Fig. 7) how a calculus could press upon the common duct if it was lodged in a cystic duct which was either parallel to or pursued a spiral course around the main hepatic duct. In a similar manner a calculus lodged in the hepatic duct might easily be mistaken for one lying in the cystic duct and an accident occur if the duct were too widely incised in the removal of the calculus.

Section 7. Variations in the hepatic ducts. I have never encountered these in my dissections but they have been found by Ruge, Descomps, Kunze, and Kehr.

7A. The right hepatic duct (Fig. 7). This may empty into the gall-bladder at its liver bed or it may empty into the cystic duct, or again the latter may open into the right hepatic duct.

The accidents which might occur during operation from any of the above variations can be easily visualized.

7B. Accessory hepatic duct. Descomps found that a small accessory hepatic duct occurred in 12% of bodies examined by him. It either enters into the right hepatic duct, or at the point of junction of the right and left hepatic ducts, or into the main hepatic duct, or finally into the cystic duct close to its junction with the main hepatic duct.

Space will not permit of more than a brief enumeration of two deviations from the normal of the gall-bladder and cystic duct which have played a part in accidents during cholecystectomy. I refer, *a*, to a very short cystic duct permitting the hepatic duct to be easily pulled out of its course so that the junction of the cystic, hepatic, and common ducts can be easily resected; *b*, to a gall-bladder with its pelvis on the upper side, firmly adherent to the hepatic duct, so that it is easy to pull the wall of this duct during removal of the gall-bladder.

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CAESAREAN SECTION UNDER LOCAL ANAESTHESIA COMBINED WITH MORPHINE AND SCOPOLAMINE NARCOSIS.

BY FREDERICK C. IRVING, M.D., BOSTON.

IN certain of the graver complications of pregnancy the selection of the method of delivery and of the anaesthetic demands very careful judgment on the part of the obstetrician. In many instances the vital interests of the mother require that pregnancy be terminated.

We must see to it, however, that the means we adopt to deliver the patient do not bring about a fatality or chronic invalidism and thus directly result in what we are trying to avoid.

Among the complications of pregnancy in which we often must face this situation are cardiac disease where there has been one or more breaks of compensation, and some cases of cardio-renal disease, nephritis, diabetes and tuberculosis of the lungs. Our problem here is to remove the foetus by the method calculated to disturb least the vital processes of a very sick patient. With this in view we must select a procedure which carries with it a minimum of shock and we must choose an anaesthetic which not only produces no poisonous or irritant effect upon organs essential to life but which causes the patient the least possible mental or physical distress.

In the writer's opinion Caesarean section under local anaesthesia combined with morphine and scopolamine narcosis accomplishes this end more safely and almost as easily as any means at present at our disposal. The writer does not advocate it as a routine method of delivery in cases requiring Caesarean which are otherwise normal since with them a general anaesthetic will do no harm, nor does he by any means approve of "twilight sleep" in normal labor. In these cases nitrous oxide and oxygen analgesia will accomplish more than was ever claimed for "twilight sleep." Caesarean section under local anaesthesia combined with morphine and scopolamine should be reserved for those cases in which we wish to avoid the pain and physical exertion of labor, the possible shock of an operative pelvic delivery, and the danger of a general anaesthetic.

For purposes of treatment patients with heart disease during pregnancy may be divided into two classes: (1) those who have never suffered a break in compensation and (2) those who have. The first class may usually be treated under constant observation during pregnancy along general medical lines. Provided there is no malposition or no disproportion between the baby and the pelvis such patients may be allowed to go into labor and to complete the first stage. The use of morphine and other sedatives, except chloral, during the period of dilation is advisable in order to make labor as easy as possible. After full dilatation of the os the foetus should be extracted with forceps under carefully administered ether anaesthesia to save the patient the muscular effort of expulsion. It is unwise to drive through a hard second stage a patient who has already used part of the reserve force of her heart in providing compensation for damaged valves. We never know when the limit of cardiac response has been reached. The indication is, therefore, to make labor so easy that the reserve force of the heart may be drawn upon to the least possible degree.

Newell takes the view that even the first stage of labor in cardiac patients who have never been decompensated may produce enough damage to shorten materially their lives. He is, therefore, inclined to deliver them near term by Caesarean section unless the first stage, by reason of multiparity or other causes, bids fair to be short and easy.

The second class of cardiac patients presents a different problem. Here there have been one or more attacks of decompensation either before or during pregnancy, and the cardiac reserve has been overdrawn on one or more occasions. In these cases even the first stage of labor may prove disastrous. A number of deaths occur days, even one or two weeks, after the successful completion of labor and at a time when the obstetrician has begun to hope that the danger is over. If decompensation of any considerable degree has occurred during pregnancy and the patient is reasonably near term so that there is an opportunity to obtain a living baby we should bring about the reëstablishment of compensation if possible and then effect delivery before another break occurs. Delivery during decompensation is too dangerous to attempt by any method. Should a serious break in compensation occur in early pregnancy the safety of the mother demands that the life of the child, at best problematical, be disregarded. A break in early pregnancy indicates that other and more serious attacks of decompensation are likely to follow, any one of which may prove fatal. From the practical standpoint it should be remembered that even if the patient should survive several failures of compensation there is great danger that during one of these periods the foetus may die of asphyxia *in utero* from faulty oxygenation. It is consequently bad policy to jeopardize the life of the mother for that of a child which may be lost in so doing.

F. G. Brigham believes that cases of myocardial diseases characterized by absence of any

demonstrable valvular lesion and a total lack of response to digitalis medication should be delivered whenever their condition warrants it, regardless of the period of pregnancy. These cases are markedly lacking in cardiac reserve force and do badly under any form of treatment if allowed to go near term.

Caesarean section offers the best solution in cardiac disease where decompensation has occurred because it is attended by a minimum of shock and because by its employment the stress and strain of labor are avoided. It also gives an opportunity to sterilize the patient should it be advisable, which it usually is. The chief objection to Caesarean is that, even more frequently than after most laparotomies, it may be followed by intestinal distention and by dilatation of the stomach, both of which, but particularly the latter, may prove disastrous to an already embarrassed heart. These complications may be avoided by attention to three details. These are: (1) the use of the low abdominal incision, entirely below the umbilicus. In this way the stomach and intestines do not come into the field at any stage of operation. (2) the close approximation of the uterus to the abdominal wall by the hands of two assistants, who exert firm pressure exteriorly against the patient's flanks until the uterine contents have been completely evacuated. In this way the spilling of liquor amnii and blood into the peritoneal cavity is largely avoided. (3) The avoidance of gauze packs, either wet or dry. The forcing of gauze between the parietal peritoneum and the uterus causes considerable peritoneal irritation. Unless it is most carefully applied it also defeats its own ends as it tends to separate the abdominal wall from the uterus and allow fluid to run into the peritoneal cavity.

Having considered the advisability of Caesarean section for patients who have had cardiac decompensation our attention is next directed to the choice of anaesthetic. Chloroform may, of course, be dismissed without discussion as it is a direct cardiac poison. Concerning ether and its effects upon the heart there is a considerable diversity of opinion among pharmacologists and anaesthetists. Cushny maintains that under a toxic dose of ether the heart beats are slower and weaker. Tyrode states that it does not directly stimulate the heart. On the other hand Hare says positively that ether as usually given for anaesthesia is a cardiac stimulant and that it increases the force and rate of the pulse, a belief in which he is sustained by Gwathmey and Butler. Unlike chloroform, ether, according to Gwathmey and Cushny, never causes inhibitory arrest of the heart at the beginning of anaesthesia. The most intelligent opinion upon the effect of ether as a cardiac stimulant appears to be that of Meyer and Gottlieb who quote the work of Bock upon animals in which the heart was isolated from the central nervous system. In such animals the administration of ether produced no result upon the force of frequency of the heart beat, thus proving that any apparent stimulant effect was due to a reflex action and not to any direct influence of the anaesthetic upon the cardiac muscle.

From the practical point of view the thing about ether which concerns us most is not its lack of toxicity or its stimulant properties, but the difficulty of its administration to a cardiac. Patients suffering from severe heart disease are characteristically nervous and apprehensive. Anything that disturbs them will send their pulse up a number of beats per minute. The psychic element comes strongly into play. Our experience with them at the Boston Lying-in Hospital has been that they are apt to be querulous and difficult to manage. They do not make good ether patients. So far as their nervousness and mental attitude are concerned there is a certain resemblance to hyperthyroidism. Lahey's success in operating on exophthalmic goitre under local anaesthesia combined with morphine and scopolamine has led the writer to employ the same method with this class of cardiacs. Ether is apt to cause irritation of the respiratory passages in these patients, who in addition often have a certain amount of oedema of the lungs. Spasm and cyanosis are likely to result, which deprive the heart of oxygen and increase the load under which it has to work by raising the blood pressure. There is a real danger of sudden death at this time. Failure to maintain an open airway will produce the same disastrous effect. Even the use of preliminary medication and the exercise of the greatest possible care cannot always prevent this most unhappy result.

Nitrous oxide and oxygen is pleasant to take, rapid in action, produces no tissue changes in the body and is almost immediately eliminated. However, the borderline between anaesthesia and even slight asphyxia is so narrow that a pa-

tient suffering from severe heart disease should not be allowed to take the risk attendant upon it.

Spinal anaesthesia, aside from its own inherent dangers, presents the obvious disadvantage that the patient is fully conscious. For a nervous, apprehensive cardiac to be present mentally as well as physically at a Caesarean section performed upon herself would be most distressing to her.

Paravertebral anaesthesia combined with morphine and scopolamine narcosis as practiced by Siegel is cumbersome and the technic difficult. Local anaesthesia accomplishes the same result in much less time and with the greatest ease and simplicity.

As regards diabetes, Joslin states that albumin and casts are apt to appear in the urine after confinement, and he suggests that the discovery of renal elements during pregnancy may raise the question of Caesarean section. The administration of ether is apt to result in acidosis. Caesarean section either by the method here described or under gas and oxygen anaesthesia provides an appropriate method of terminating pregnancy in those cases where it is not advisable to await spontaneous delivery.

The experimental work of Kemp upon the dog showed that ether produced a marked contraction of the renal vessels without a general increase in peripheral blood pressure. The secretion of urine was thereby lessoned and was occasionally completely arrested, or such injury was caused the kidney that albuminuria or hematuria followed. This would indicate that ether in nephritis or cardio-renal disease may do distinct harm. Should a high blood pressure be present nitrous oxide and oxygen is also contraindicated. Many children are lost in nephritis complicating pregnancy from placental infraction by waiting too long before delivery is effected. In selected cases after viability has been reached Caesarean section by the method mentioned offers an improved prognosis for mother and infant.

In certain cases of pulmonary tuberculosis, especially where it is desired to sterilize the patient, or when it is considered advisable to save her the possibility of a long exhausting labor, Caesarean section under local anaesthesia combined with morphine and scopolamine offers an effective means of accomplishing the desired end. It has also been used most satisfactorily in a case of bronchial asthma.

The technic of operation is simple but careful attention to detail is of absolute importance and will determine the difference between success and failure. No preliminary cathartic is given. The patient receives a low enema the morning of operation. Her ears are plugged with cotton to keep out extraneous sounds. While she is still in bed, which should, if possible, be on the same floor as the operating room, she is given 1/6 grain of morphine and 1/200 grain scopolamine subcutaneously. The morphine is never repeated. The same dose of scopolamine is repeated at 40 minute intervals until the patient is quiet and dozing. Three doses of scopolamine are usually necessary to produce the desired result, but as much must be given as is necessary. When the patient is in this condition a folded towel is placed over her eyes and she is transported gently and quietly to the operating room. The operation is begun when the patient is asleep but under no circumstances before. Just previous to beginning the operation a final 1/200 grain of scopolamine is administered to carry on the narcosis. No talking is permitted in the operating room and the rattling of instruments and basins is carefully avoided. A nurse sits by the patient's head and takes her pulse at regular intervals. Speaking to the patient is absolutely forbidden. She lies upon the operating table without any restraint whatever, and should she move her arms or legs during the operation no one attempts to control her.

The surgeon marks the length of the abdominal incision upon the skin between the pubis and the umbilicus with a needle scratch. Then using a hypodermic syringe with a fine sharp needle he infiltrates the substance of the skin under this line with 1% novocain or procain. He proceeds deliberately, being careful to keep the point of the needle in the skin itself so that a series of wheals is the result. He then makes a series of punctures downward through the infiltrated skin with a larger needle and syringe, arresting the point of his needle when the resistant fascia is reached. In this way he anaesthetizes the subcutaneous tissue and partially infiltrates the fascia. After waiting ten minutes by the clock he divides the skin and subcutaneous tissue down to the fascia. If at any stage of the operation the patient gives evidence of feeling pain more local anaesthetic is injected and no further operating is done until it has

taken effect. The fascia and peritoneum are now infiltrated in turn and divided. The uterus presents under the incision and is approximated to the abdominal wall by the method already described. One ampoule of pituitrin is now injected into the uterine muscle. The uterine peritoneum and muscle are insensitive, so it is not necessary to inject any local anaesthetic. The uterus is incised, the incision being carried down to the membranes first in its lower portion to avoid encountering the placenta and is then completed with scissors. The membranes are now ruptured, the operator's hand cautiously inserted into the ovum and the anterior leg gently grasped. The child is slowly and carefully extracted and the cord clamped and cut. All tearing of tissue or rough handling must be avoided. Speedy and spectacular operating is most out of place here. Both the abdominal and uterine incisions must be amply large to allow the easy extraction of the child.

Having disposed of the baby the operator inserts his fingers into the upper angle of the uterine wound and gently delivers the uterus through the abdominal incision. Then and not before the assistants are allowed to remove their hands from the patient's flanks. One or more sterile towels are wrapped around the lower portion of the uterus and secured with clamps. The placenta and membranes are removed and the uterus sutured in the usual manner. If it is desired to sterilize the patient the proximal 1½ inches of the mesosalpinx is infiltrated with local anaesthetic just below the tube. The tube is tightly ligated 1 ½ inches from the uterus and the proximal portion excised, including its uterine insertion. The distal cut end is now buried between the folds of the mesosalpinx, which are brought together with a running stitch. The elliptical incision in the uterine cornu left by the excision of the tube is closed by sutures. The same process is repeated on the other side and the uterus returned to the abdominal cavity. Suture of the abdominal wall is carried out in the usual way. One should, however, avoid picking up the parietal peritoneum in hemostats or pulling upon it in any way, as such traction causes intense pain and is sure to arouse the patient. Packing of gauze into the peritoneal cavity will produce the same effect. It may be necessary to inject more local anaesthetic into the skin before it is sutured.

In the cases operated on by the writer according to this technic or in those which have come under his observation there has been an entire absence of operative shock. The patients have been returned to bed in no worse condition than when they left and there have been no maternal deaths. All have either been entirely unconscious of what was going on at the time of operation or else have had a very hazy idea of it. With the exception of one child, which was dead at the time of operation, there have been no foetal deaths. The full term infants have cried promptly at the time of delivery, more vigorously, in fact, than after Caesarean under ether anaesthesia. The premature infants have required considerable resuscitation. The method is doubtless applicable to other conditions than those mentioned. In eclamptic primiparae with rigid cervices it may have a distinct field of usefulness.

SUMMARY.

(1) Caesarean section under local anaesthesia combined with morphine and scopolamine narcosis is a useful and successful method of delivery in some of the graver complications of pregnancy. Among these are cardiac disease where one or more attacks of decompensation have occurred, diabetes, nephritis and cardio-renal disease, pulmonary tuberculosis and bronchial asthma.

(2) In general, it finds its application in those cases where we wish to avoid the pain and physical exertion of labor, the possible shock of an operative pelvic delivery, and the danger of general anaesthetic.

(3) Plenty of time must be allowed for both the general medication and the local anaesthetic to act.

(4) Deliberate operating, with studious avoidance of roughness, is essential to success.

SOME SURGICAL ASPECTS OF SYPHILIS.*

BY WILLIAM PEABCE COUES, M.D., BOSTON.

THE seed of our present day knowledge concerning the surgical aspects of syphilis comes from the work of three great Old World scientists, Virchow, Alfred Fournier, and Sir Jonathan Hutchinson.

* Read at a meeting of the Out-Patient Staff of the Massachusetts General Hospital, March 12, 1920.

With all the recent intensive study of syphilis which has been carried out during the past few years, and which through refined methods of diagnosis has brought to light the great amount of unrecognized syphilis in communities, it is indeed strange that the surgeon, excepting in a few instances, has not realized how much bearing these facts may have on his own problems of diagnosis and operative treatment.

If the surgeon receives a negative Wassermann report before operation, the factor of a possible syphilis is often dismissed. Often the Wassermann test is not even done, because the patient does not have any glaring manifestations of the disease, and denies any previous infection. We must realize that a negative Wassermann reaction means nothing, as far as the possibility of syphilis goes. The fact that many patients are infected, innocently or otherwise without their knowledge, is not realized as often as it should be.

Surgical syphilis has to do with the lesions of syphilis which require surgical treatment, either conservative or operative, in conjunction with specific medication. Also we must include those cases where manifestations of the disease simulate surgical conditions demanding operative intervention. In a case demanding operative surgery in a syphilitic, the operation wound may take on the characteristics of specific ulceration, but this is not necessarily so, and does not happen in the majority of cases.

In cases of suspected syphilis with negative Wassermann reactions, we have in skeletal radiography, a most valuable method of detecting at times a silent syphilis. This, of course, does not mean that the trouble the patient is to be operated upon for is necessarily syphilis, but that the old infection is there, and may light up after operation. Probably about 15 or 18% of those applying for surgical treatment at large hospital clinics, have been infected some time or other, with the spirochaeta pallida.

In considering this subject more in detail, we find that there are certain diseases and certain parts of the body where we find syphilis masquerading as a surgical condition, or complicating a surgical case. From a study of such cases we find many unrecognized specific infections, and can draw some definite conclusions.

Cervical adenitis, due to tertiary syphilis, a gummatous infiltration of the glands, is not so very uncommon. It has been mistaken for tuberculous cervical adenitis, and for Hodgkin's disease, more than once. Deep seated syphilitic mediastinitis is sometimes mistaken for hopeless malignant disease, and a fatal prognosis given, when the patient has been subsequently relieved of symptoms and symptomatically cured by recognition of the real cause of the trouble and vigorous specific treatment.

Obscure conditions simulating ordinary bursitis or synovitis, are sometimes treated for a long time with a mistaken diagnosis, and months afterward, when the diagnosis of a luetic bursitis or synovitis is made, they are quickly symptomatically cured. This is true of both those cases which have been treated conservatively and those which have been operated upon, and have not healed.

Syphilitic bone disease at times underlies varicose veins of the legs and varicose ulcers. The veins are operated upon but the ulcers return. When the true cause of the condition is recognized, cure quickly follows in many cases. Not infrequently specific ulcers of the leg are diagnosed as varicose, because the patient has varicose veins. A true syphilitic phlebitis is rare, but exists.

In the question of non-union and delayed union of fractures we must always have in mind the possibility that syphilis is at the bottom of the trouble. Routine Wassermann tests should always be made in these cases, and when they are negative, x-rays of the other bones should be taken to see if they show evidence of an old syphilis. In one clinic in a distant city a Wassermann test was taken in every case of ununited fracture for a year. Every case gave a positive reaction.

Bone disease caused by syphilis, apart from the ordinary osteoperiostitis, may cause a rarefaction or thinning of the bone, making the individual more liable to fracture. Repeated fractures, especially if the trauma is slight, make us think of the possibility of syphilis. The French workers of some years ago understood these facts, which are as yet not fully appreciated in America.

Gummatous infiltration of the testicle is not infrequently operated upon for sarcoma, teratoma, or tuberculosis. In such cases it must be remembered that outside of a Neisser infection, gumma is the common, ordinary cause of

enlargement and it should be ruled out by tests, history, and, if necessary, therapeutic test, before operation is done.

The tabetic arthropathies, with or without ulceration, are not infrequently incorrectly diagnosed, and the underlying cause of the trouble unrecognized. A painless ulcer on the sole of the foot, with a hole leading to dead bone, usually means tabes, though syringomyelia and leprosy must be thought of. All the so-called "stomach cases" that the surgeon sees must be closely scrutinized with a view to syphilis as a cause. Five or six per cent. of ulcers of the stomach are now said to be syphilitic. I believe that 10 per cent. would be nearer the truth. Gummatous ulceration of the stomach may simulate gastric cancer so closely both in symptoms and in radiographic picture, as to make the diagnosis very uncertain. There is an old French proverb which reads, "In a case where a malignant tumor is suspected, happy is he whose father has had syphilis." Fournier modified this saying to read, "In a case where a malignant tumor is suspected, happy is he whose grandfather has had syphilis."

The wide field of the relation of syphilis to trauma and especially industrial injury has been little explored. In industrial accident cases it has been demonstrated that many times a complicating previous syphilis may be overlooked, and the patient's convalescence retarded from lack of specific treatment.

Many times cases have been operated upon for supposed acute appendicitis or gall bladder disease, only to find that the patient was suffering from the gastric crises of tabes.

In this paper it is possible only to outline some of the many important points connected with surgical syphilis. In hospital practice it is often the surgeon who is the first to see the unusual and obscure manifestations of syphilis, as such cases are often sent first to his department, it being supposed they are of a purely surgical nature. Careful thought and examination with reference to lues, will richly repay the surgeon. Many times he will save himself or save others the humiliation of operating for a condition in which active surgical intervention is not indicated. With this in mind, it is fitting to remember the last words of Stolper, in his classic article on "Syphilis and Trauma," "If we are keen observers we shall shorten many cases of long convalescence, and avoid many bad results, and for some will produce a cure, for in the words of her greatest master, Virchow, 'Shockingly great is the havoc wrought by syphilis.'"

Society Report.

PROCEEDINGS OF THE NEW ENGLAND BRANCH OF THE AMERICAN UROLOGICAL ASSOCIATION.

(Concluded from page 562.)

DR. SMITH: I should like to report briefly two cases of bilateral ligation of the ureter that occurred about two years ago within five days of each other.

A woman of forty had a supravaginal hysterectomy on December 27, 1917. After the operation she passed seven ounces of urine, then one ounce, and no more. I saw her on December 30th, seventy-two hours after operation; she had vomited on that day and had pain in her back. Cystoscopy; normal bladder; both ureters catheterized for about 8 cm. Catheters would not pass above that point. I believed that both ureters had been ligated and advised bilateral nephrostomy. She was given ether; both kidneys were exposed; the pelves were distended but not dilated. I opened the pelvis on each side and urine gushed out. Tubes were inserted by the following method: A curved hemostat length was passed through the pelvic incision, out through cortex; the tube was grasped and drawn in through cortex to pelvis. The incisions into pelves were not sutured. Patient made a good recovery after that. There was a good flow of urine from the tubes. On January 18 I cystoscoped her and found the ureters obstructed as before. On January 21st, attempted to catheterize ureters but could not get by the point of obstruction, so it seemed proper to attempt to relieve the ureteral obstruction. This was done through Gibson incisions, first on one side and then on the other. The ureters were indentified above the point of ligation. At that point there was a mass of adhesions. Both ureters were thinned down to mere threads; on the left side just a fibrous cord between the two ends of the ureter existed. Figure 1 shows this condition.

In the right ureter a very narrow lumen persisted. I made a longitudinal incision into this and sewed it up transversely as shown in Figure 2*a*. The incision was carried farther in both directions than is shown in the illustration. On the left side, the ureter was practically pinched off. I resected both ends obliquely, then sutured the cut ends together with interrupted stitches of 00 catgut. By

FIG. 1.

bringing the longest side of each level together, and the shortest side together, the circumference of the sutured area was increased, thereby avoiding a narrowing of the lumen (Fig. 2*b*). This method was suggested by A. L. Soresi, *Rev. de Chirurgie*, Jan.-Feb., 1917.

The patient did very well and I removed the nephrostomy tubes six days later. A catheter was left in the left ureter for six days, after which it was removed. On February 14, all the wounds were healed. Ninety-four ounces of urine had been passed. Urine was clearing up. The following summer the patient had an attack of pain on right side and I feared she might be going to have obstruction of right ureter; passed catheter No. 6 Fr., which went up without any obstruction. She had a constant bladder residuum of four ounces and I thought the nerve supply to bladder had been destroyed by the hysterectomy. However, as far as ureters were concerned she was all right.

January 4, 1918, I saw a patient who had had a total hysterectomy for carcinoma on January 3. On January 4, at 7 P.M., she was vomiting and having general distress. She had voided eight ounces of urine after operation and then no more. Cystoscope showed areas of retraction in base of bladder above each ureter. Ureteral catheters were obstructed on each side about 1 cm. above the meatus. Bilateral nephrostomy was done as in the first case. She was fairly comfortable with tubes in back. On April 5, 1918, about three months later, she decided to have another operation to try to remove the ureteral obstruction. Spinal anesthesia and also very light ether. Transverse suprapubic incision. The peritoneum was adherent to the bladder and was opened. No evidence of recurrence of carcinoma in the pelvis. There were light adhesions. The peritoneum was stripped off the bladder. The ureters were freed and followed down close to the bladder. Each one ran into a firm mass of adhesions. The ureters were cut across just above the mass. The bladder was opened and found to be clean. A Cleveland needle was poked through the wall at the point where the ureters would come in most easily. The ureters were seized by Cleveland needle and drawn quarter of an inch into the bladder. Fastened to the outside

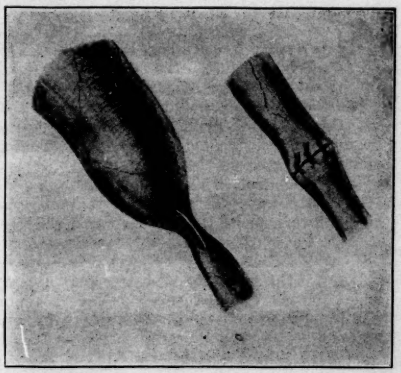

FIG. 2*a*.

FIG. 2*b*.

of bladder by two catgut sutures. The bladder was closed tightly. Catheter put in. Nephrostomy tubes removed. Patient drained eleven ounces the first night. She did fairly well and the right side closed completely. The left kidney incision continued to drain more or less intermittently. In the summer of 1918 she came back to the hospital to see if something could be done for her. I attempted to catheterize left ureter but could not pass catheter into it, as the end was loose in the bladder. Then I thought I could cut down on the ureter and put in indwelling catheter. When I examined her, prepared to do this, I found she had a recurrence of carcinoma in the vagina. Her condition did not seem good enough to warrant operation, as I felt she could not last long on account of carcinoma. She died the following November

DR. TENNEY: Some years ago I saw a case of that type and did a double nephrostomy. The patient lived only 48 hours after the nephrostomy. The kidneys did not start working again. Dr. Smith is certainly to be congratulated on his results.

DR. O'NEIL: I remember seeing a case a few years ago where both ureters had been ligated in the course of an abdominal operation. I made a cystoscopic examination. There was a small quantity of urine in the bladder. Both ureters were obstructed about an inch from the bladder. I advised that bi-lateral nephrostomy be done at once. This was on the second day after operation. The operation was performed on the afternoon of the day following the cystoscopy. The patient did not recover.

DR. A. H. CROSBIE: I wish to report a case in which the ureter was severed during an abdominal operation and later was successfully reunited.

The patient, a frail girl of 26, was operated on June 4, 1919, and a large fibroid pelvic tumor removed. Two days after operation a mass appeared just above the pubes. This was thought to be a full bladder, but catheterization failed to remove the tumor. It was then thought to be a collection of pus and a puncture was made through the posterior cul de sac. The puncture brought a gush of urine with disappearance of the tumor. I was called in at this time. A ureter catheter passed easily up the left ureter and a free flow of urine obtained. The ureter catheter on the right met obstruction about 6 cm. up. An injection of thorium, at this point, showed that it became diffused through the tissues and did not pass up the ureter. It was evident that the right ureter was obstructed at this point. As the patient's condition was far from good and there was free flow of urine from the vagina it was deemed best to wait before attempting to reunite the ureter. A drainage tube was inserted into the sinus in the posterior cul de sac. Finally, August 18th, the patient had improved very much and was running a normal temperature. An incision was made down to the right ureter. The upper end of the ureter was found to be dilated to the size of a thumb. The lower end was easily found lying near the severed end of the dilated portion. A probe was passed to the bladder through the lower end. The opening in the upper portion had apparently become much constricted. On opening the upper end there was a gush of pus and urine. Pus continued to ooze from the ureter, showing evidence of a good deal of pyelonephritis. It seemed wise to do a nephrostomy to be sure of complete drainage. This was done and a No. 7 ureter catheter was then passed through the right ureter to the kidney pelvis and the severed ends of the ureter united about the catheter with a No. 0 chromic catgut.

For the first few days a great deal of pus drained through the nephrostomy tube. This soon stopped and the urine became clear. There was a free flow of urine through the catheter, too. The nephrostomy tube and the ureter catheter were removed on the tenth day. The patient began to leak a little urine through the vagina so the ureter catheter was replaced, without difficulty. The leaking at once stopped. After a few days the catheter was again removed. For a few days a few drops of urine came through the vagina. This finally stopped and October 11, the patient was discharged entirely healed.

Book Review.

The Action of Muscles. By WILLIAM COLIN MACKENZIE, M.D., F.R.C.S., F.R.S., New York: Paul B. Hoeber. 1918.

The author aims at giving a correct and fundamental understanding of muscle action. He emphasizes the prime importance of appreciating the ancestral history of myology, in order to be able to handle paralysis properly. Each region of the body is discussed with reference to the anatomy and mechanics of the muscles and their opponents, the "zero" position of rest of the muscles, the principles underlying injuries, and the method of treatment. The subject matter is clear and logical, and is illustrated with numerous cuts. It is a contribution especially useful to army medical circles, who take care of men suffering from disabilities of an orthopedic nature.

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THE DATING OF PRESCRIPTIONS FOR NARCOTIC DRUGS.

THE practice of pre-dating prescriptions for narcotic drugs so that users will not have to make frequent calls upon their physicians resulted in such flagrant abuses that the Internal Revenue Office was obliged to guard narcotic prescriptions with stringent regulations. There have been instances where users of narcotic drugs have been given two and three prescriptions at the same time, dated to allow the users to get drugs at subsequent intervals rather than to have them run to the practitioner for observation after each prescription had run out.

The Internal Revenue Bureau insists that all prescriptions for drugs and preparations must be dated and signed by the physician on the day issued. They must bear the name, address, and registry number of the practitioner, must be written in ink, indelible pencil or typewriter; if typewritten, they must be signed by the practitioner with ink or indelible pencil, and the druggist who fills it must obtain the signature and address of the person who secures it. Refilling, or partial filling at any time, of narcotic drug prescriptions is prohibited and telephone orders are not permitted, even though the prescriptions covering such orders are subsequently received. Besides the Federal regulations, there is a Massachusetts law which provides that such prescriptions must be filled within five days after being dated.

Regulations further provide that a prescription must be issued only for legitimate medical purposes. An order purporting to be a prescription issued to an addict not in the course of professional treatment in an attempted cure of the habit, but for the purpose of providing the user with narcotics sufficient to keep him comfortable by maintaining his customary use, is not a prescription within the meaning of the act. Regulations also require practitioners to register with the Internal Revenue Office in order to dispense narcotic drugs. Some claim that they do not "dispense," but the department has ruled that a practitioner "dispenses" when he writes a prescription. Every narcotic prescription must bear the registry number of the doctor writing it.

Druggists have greatly assisted the Internal Revenue Office in enforcing the narcotic regulations by their refusal to fill prescriptions which are not written in accordance with all requirements. It is through the coöperation of many of these reliable druggists as well as of practitioners, that the Internal Revenue Office is able to keep in intimate touch with the narcotic traffic.

THE ONE HUNDREDTH ANNIVERSARY OF THE BIRTHDAY OF FLORENCE NIGHTINGALE.

ON the thirteenth of May, throughout the country, celebrations were held in honor of the one hundredth anniversary of the birthday of Florence Nightingale, to whose vision the world owes a debt of gratitude for the adequately trained nurse. It would be hard to picture today a world without trained nurses. The last five years particularly have shown not only the benefits to be derived from such care as is given by the adequately trained nurse, but the absolute necessity for this care.

Florence Nightingale was of English parentage, of gentle birth. All her life was devoted to bettering conditions in hospitals, particularly in giving better nursing care to those who were unable to demand it for themselves. Her great opportunity came during the Crimean War, when she finally was given authority to organize a Nursing Corps for the care of men wounded on the field of battle; her work in the Crimea proved, certainly to the English people, that not only was much suffering alleviated, but many lives saved, by proper and efficient nursing care, so that upon her return to England she was given $250,000 with which to start the Nightingale School of Nursing.

The first training school in this country, established approximately fifty years ago in Bellevue Hospital, was organized by a Nightingale sister brought over from England for that purpose, and it is only fitting to note here that the woman who may justly be called the Florence Nightingale of the United States of America, Jane A. Delano, was a graduate of this school. It was due to Miss Delano's foresight, vision and patriotism, and great love of humanity, that 35,000 graduate nurses of this country were made available for service, not only with the military forces of our own country, but also with our allies in Europe.

The Red Cross Nursing Service was organized by Miss Delano, to be available as a reserve for the Army in case of war. At the outbreak of the late war, there were approximately 8,000 nurses available for duty. This number was increased to 35,000 after the entry of the United States into the war, and these nurses were in service either in military hospitals, in civilian relief work, both here and abroad, or doing recruiting for the service in this country, these being chiefly those not eligible for active military duty or waiting assignment in military hospitals. With the signing of the Armistice and demobilization of the military forces comes the problem of how we are to care for the soldiers who, either through casualties on the battle field or disability contracted in military camps, will not be able to take up their work again for some time, if at all.

The work of giving hospital care and treatment to these men has been delegated to the Public Health Service and 52 hospitals have been established for this purpose. There are in the service now approximately 1,000 nurses, the majority of whom have done military service and who see in this work a continuance of the patriotic and humane service for which Florence Nightingale gave the best years of her life, and for which Jane Delano gave her life itself. Is it not an obligation upon the nursing profession, not only to uphold the standards of these two great nurses, but to see that the best of nursing care is given to these beneficiaries of the Government, and to offer its service in this field of endeavor?

ORGANIZATION OF THE MASSACHUSETTS HEALTH COUNCIL.

As a further step in the direction of more effective coöperation in dealing with the health problems of the state, delegates from the principal state-wide organizations interested in public health met at the Boston Medical Library on May 12 under the auspices of the Public Health Committee of the Massachusetts Medical Society for the purpose of forming a central health council.

Subject to any necessary ratification by the organizations which they represented, delegates from the American Red Cross, the American Public Health Association, the Massachusetts Anti-tuberculosis League, the Massachusetts Association of Boards of Health, the Massachusetts Dental Society, the Massachusetts Medical Society, the Massachusetts Society for the Prevention of Cruelty to Children, and the Massachusetts Visiting Nurses' Association, were enrolled as members of the "Massachusetts Health Council," the purpose of which was declared to be, "to consider matters of mutual interest to the organizations represented with view to securing concerted action on the part of these organizations with respect to such matters."

A committee was appointed to recommend the permanent form of organization of the Council and its by-laws and report at a meeting to be held on June 2, 1920.

MEDICAL NOTES.

AWARD OF THE SAMUEL D. GROSS PRIZE.—The Samuel D. Gross Prize of the Philadelphia Academy of Surgery for 1920, amounting to fifteen hundred dollars, has been awarded to Dr. Evarts A. Graham of Washington University Medical School, St. Louis, for his essay en-

titled "Some Fundamental Considerations in the Treatment of Empyema Thoracis."

LIBRARY OF SIR WILLIAM OSLER.—The medical and scientific library of Sir William Osler was bequeathed by him to McGill University, Montreal.

GIFT TO THE HENRY PHIPPS INSTITUTE.—The sum of five hundred thousand dollars has been given by the family of Mr. Henry Phipps to the Phipps Institute of the University of Pennsylvania, for the study of tuberculosis.

ENDOWMENT FUND OF THE NEW YORK POST-GRADUATE MEDICAL SCHOOL.—The New York Post-Graduate Medical School Endowment Fund will receive two hundred and fifty thousand dollars from Mr. James F. Brady and from Mr. Vincent Astor toward the two million dollar fund as soon as the first million dollars has been raised.

APPROPRIATION FOR THE UNIVERSITY OF MISSISSIPPI.—An appropriation of over one million dollars has been made by the Mississippi legislature for the University of Mississippi: $250,000 for a new chemical building to provide laboratory and other facilities for students in the medical school, $10,000 to secure permanent equipment for the medical school, exclusive of chemistry, and additional funds with which the salaries of all the teachers can be increased.

DEATHS IN THE ITALIAN SANITARY SERVICE.—During the war, there were in the Italian Sanitary Service the following deaths: Medical officers, 1,060, including 377 killed in action, 216 students, 40 dispensers, 40 chaplains, 33 nursing sisters, and 11 members of the Red Cross staff.

SWISS MEDICAL CONGRESS.—A Swiss medical congress is to be held at Berne on June 5 and 6, 1920.

WALTER REED GENERAL HOSPITAL.—The Walter Reed General Hospital, Washington, D. C., is to be gradually developed into one of the main hospitals of the Army. In order to establish "a medical center" at this institution, plans have been made for the expenditure of about ten million dollars. Two additions are to be made to the main building for the use of medical and surgical wards, a dental department, laboratory, eye, ear, and throat department and dispensary, which are now housed for the most part in temporary buildings.

PEKING UNION MEDICAL COLLEGE.—The trustees of the Peking Union Medical College, Peking, China, have accepted the resignation of Dr. Franklin C. McLean as director of the college. Dr. McLean has retired from the directorship in order to devote himself to the professional work of the department of medicine of the Peking College, of which he is professor and head. Dr. Henry S. Houghton, formerly dean of the Harvard Medical School of China, at Shanghai, has been appointed acting director of the college.

APPOINTMENT OF DR. J. B. CLELAND.—Dr. J. B. Cleland has been appointed to the chair of pathology which has just been created at the Adelaide University, South Australia.

MEMORIAL MEETING IN HONOR OF DR. ABRAHAM JACOBI.—At a memorial meeting held on May 6 by the New York Academy of Medicine in honor of the late Dr. Abraham Jacobi's ninetieth birthday, a bas-relief of Dr. Jacobi was presented by George McAneny and was accepted by the president of the Academy, Dr. George David Stewart. An address was delivered by George E. Vincent, of the Rockefeller Foundation.

THE MODERN HOSPITAL.—*The Modern Hospital*, a monthly journal devoted to the building, equipment, and administration of hospitals and allied institutions, has established its headquarters at 22-24 East Ontario Street, Chicago, in a building which is to be known hereafter as The Modern Hospital Building. *The Modern Hospital* is thus adding another to the group of buildings which is making Chicago one of the leading centers of medical and hospital organization in this country. The building will be used not only for the offices of *The Modern Hospital*, *The Modern Hospital Year Book*, and *Modern Medicine*, but also as the national headquarters of the American Hospital Association and the National Catholic Welfare Council. Within a few blocks stand the

building occupied by the American Medical Association and the new home of the American College of Surgeons.

STUDY OF AFRICAN SLEEPING SICKNESS.—Dr. Louise Pearce of the Rockefeller Institute for Medical Research has sailed for England and Belgium *en route* to the Belgian Congo for the purpose of studying the chemotherapy of African sleeping sickness.

GIFT TO POLISH RED CROSS.—It has been announced by the American Red Cross that a gift of two million Polish marks has been made to the Polish Red Cross in order to enable it to equip and maintain three hospitals in an effort to check further the spread of typhus in that country.

BOSTON AND MASSACHUSETTS.

WEEK'S DEATH RATE IN BOSTON.—During the week ending May 22, 1920, the number of deaths reported was 239 against 220 last year, with a rate of 15.42 against 14.41 last year. There were 43 deaths under one year of age against 37 last year.

The number of cases of principal reportable diseases were: Diphtheria, 43; scarlet fever, 54; measles, 230; whooping cough, 88; typhoid fever, 3; tuberculosis, 51.

Included in the above were the following cases of non-residents: Diphtheria, 7; scarlet fever, 12; measles, 4; typhoid fever, 2; tuberculosis, 8.

Total deaths from these diseases were: Diphtheria, 4; scarlet fever, 4; measles, 4; whooping cough, 8; tuberculosis, 21.

Included in the above were the following non-residents: Scarlet fever, 1; tuberculosis, 1.

Influenza cases, 5; smallpox cases, 3.

FRANKLIN DISTRICT MEDICAL SOCIETY.—The annual meeting of the Franklin District Medical Society was held at the Mansion House on Tuesday, May 11, 1920. Dr. Theodore S. Bacon of Springfield delivered an address. Officers were elected for the coming year.

APPOINTMENT OF DR. LAWSON G. LOWREY.—Dr. Lawson G. Lowrey has been appointed assistant professor in the Phychopathic Hospital of the University of Iowa. Dr. Lowrey has been chief medical officer of the Boston Psychopathic Hospital for three years.

THE BROOKLINE HEALTH BULLETIN.—The first number of the *Brookline Health Bulletin* has been issued and will be distributed to every household in Brookline. This Bulletin is a four-page paper, published as a means of disseminating information in regard to health problems. The material for the first number was collected by Dr. Francis P. Denny, health officer of the Brookline Board of Health. In the subject matter is included a list of the principal causes of death of Brookline residents and suggested means of prevention. This article states that during 1919 the principal causes of death in Brookline included the following diseases: Diseases of the heart, 83; pneumonia (and influenza), 65; cancer, 57; cerebral hemorrhage (apoplexy), 40; diseases of the arteries, 35; tuberculosis (all forms), 25; diseases of the kidneys, 24; all other causes, 131.

The *Bulletin* contains interesting articles on the serious consequences that often follow delay in calling a physician, especially with reference to the appearance of white spots in children's throats. This article discourages too much faith in "neighborly advice." Other articles deal with the fly and mosquito nuisance, clean-up time, the prevention of tuberculosis, cancer, and other subjects. The subject of milk inspection is discussed, and a list of all dealers supplying milk to residents of Brookline is given, with each dealer's rating as to the grade and price of milk, raw or pasteurized, the average fat, the sediment test, and the amount of bacteria per cubic centimeter. The Board of Health has not hesitated in grading milk as very satisfactory, satisfactory, passable, unsatisfactory, or very unsatisfactory. Valuable suggestions are given as to the proper way in which milk should be kept. Other articles deal with information imparted by the Brookline Food Center, and with low cost diets, menus, and recipes.

The Massachusetts Medical Society.

The one hundred and thirty-ninth anniversary of the Society will be held at the Boston Medical Library June 8 and 9, 1920, according to the following program:

GENERAL INFORMATION

A Bureau of Information will be maintained by the Committee of Arrangements during Tuesday and Wednesday in the lobby of the

Boston Medical Library, 8 The Fenway, the headquarters of the Society.

All Fellows are requested to register and procure their dinner tickets as early as possible at the Bureau of Information.

All General and Section Meetings will be held at the Boston Medical Library. Parking space for automobiles, with supervision, will be provided. Inquire of the police officer in charge. The dinner will be held at the American House, 56 Hanover Street, Boston, Wednesday evening.

Fellows of the Society desiring hotel accommodations for Tuesday or Wednesday night are advised to communicate with the hotel desired at an early date, or to communicate with the chairman of the Committee of Arrangements.

The Harvard Medical School, 240 Longwood Avenue, and the Tufts College Medical School, 416 Huntington Avenue, will be open for inspection by the Fellows both Tuesday and Wednesday.

There will be an exhibit of the charter and seal of the Society and of interesting books, photographs, medals, and medical relics in Holmes Hall, Boston Medical Library.

June 8, 1920

TUESDAY MORNING

CLINICS WILL BE HELD AS FOLLOWS:

Peter Bent Brigham Hospital.

LARGE AMPHITHEATRE, 10 A.M.

10.00 Relation Between the Pulse Rate and Basal Cell Metabolism. Dr. Cyrus G. Sturgis.
10.10 Experimental Myocarditis by Thyroid Feeding in Guinea Pigs. Dr. E. W. Goodpasture.
10.20 Results of the Treatment of Hyperthyroidism by Various Surgical Methods. Dr. David Cheever.
10.30 Hypersensitiveness to Epinephrin. Dr. Joseph T. Wearn.
10.40 Results of the Treatment of Hayfever. Dr. I. C. Walker.
10.50 Experimental Observations on Causation of Symptoms in Peptic Ulcer. Dr. C. W. McClure.
11.00 Surgical Treatment of Malignant Disease of the Colon. Dr. John Homans.
11.10 Cases of Cancer of the Pancreas. Dr. Frank D. Adams.
11.20 The Preparation of the Patient for Prostatectomy. Dr. Vincent O'Connor.
11.30 The Diagnostic Value of Pyelography. Dr. William C. Quinby.
11.40 Experimental Paratyphoid Fever in Rabbits. Drs. Keene and Goodpasture.
11.50 Vascular Hypertension. Dr. James P. O'Hare.
12.00 Blood Volume in Pernicious Anemia. Dr. George P. Denny.
12.10 So-called Acute Dilatation of the Heart. Dr. Samuel A. Levine.
12.20 The Administration of Digitalis. Dr. Channing Frothingham.
12.30 Post-Operative Pulmonary Complications. Dr. E. C. Cutter.
12.40 Results of the Operative Treatment of Trifacial Neuralgia. Dr. Gilbert Horrax.
12.50 Mistakes in the Diagnosis of Brain Tumors. Dr. Harvey Cushing.

Operations will be performed between the hours of 9.00 A.M. and 12.00 M. by the Surgical Staff.

Ward rounds will be given by the Medical Service between 10.00 and 12.

Massachusetts General Hospital.

LOWER AMPHITHEATRE, OUT-PATIENT DEPARTMENT
10 A.M. TO 12 M.

10.00 Artificial Pneumo-Peritoneum as an Aid to Abdominal Diagnosis. Dr. Mason.
10.10 Karrell Diet in Cardiac and Renal Dropsy. Dr. H. Morrison.
10.20 Adenomyoma of Uterus and Contiguous Structures. Dr. H. F. Hartwell.
10.30 New Operative Approach to Hip and Sacro-iliac Joints. Dr. Smith Peterson.
10.40 Anatomical Studies of the Esophagus. Dr. H. P. Mosher.
10.50 Use of Quartz Light in Varicose Ulcers. Dr. E. L. Oliver.
11.00 Eye Complications of Influenza and Pneumonia. Dr. Ralph Hatch.
11.10 Anaphylactic Vasomotor Manifestations in the Nose. Dr. H. G. Tobey.
11.20 Observations on the Treatment of Leukemia by the X-Ray. Dr. Alexander MacMillan.
11.30 Bacterial Asthma. Dr. F. M. Rackemann.
11.40 Infantile Diabetes. Dr. P. E. Belknap.
11.50 Significance of Blood and Spinal Fluid Tests in General Paresis. Dr. H. E. Foster.

Exhibition of cases and surgical operations by the Staff, Surgical Building, 11 A.M to 1 P.M.

Boston City Hospital.

CHEEVER SURGICAL AMPHITHEATRE, 10 A.M.

Dr. F. B. Lund: operations.
Demonstration of cases:
1. Septic knee.
2. Skin graft of foot.
3. Resection of stomach.
4. Autoplastic bone graft.

Dr. E. H. Nichols: operations.
Demonstration of cases.
Dr. F. J. Cotton: operations.
Demonstration of
1. End-result, Fracture of Hip.
2. End-result, Fracture of Hip.
3. Fracture of Os Calcis.
4. Operative Reduction, Tarsal Fracture.

Dr. A. R. Kimpton: operations.
Demonstration of
1. Sarcoma of Stomach.
2. Cancer of hepatic flexure.

Dr. R. C. Larrabee
Demonstration of case:
Pathological hemorrhage.
Dr. T. Buckman
Demonstration of case:
Chronic recurrent hemorrhagic purpura.
Dr. T. W. Thorndike
Demonstration of dermatological cases.

Dr. R. A. Coffin

Demonstration of case:
Paraffinoma.

Special invitation is extended to visit

1. Influenza Research Laboratory. Dr. H. Osgood.
2. Nephritic Research Laboratory. Dr. R. Ohler.
3. Blood Service Laboratory. Dr. Larrabee and Dr. Buckman.
4. Pneumonia Service. Dr. E. A. Locke.

Special demonstration photomicrographs, in the Pathological Laboratory. Dr. F. B. Mallory.

Fellows are invited to visit any and all the wards of the Medical and Surgical Services.

Massachusetts Homeopathic Hospital

EAST CONCORD STREET, 10 A.M. TO 1 P.M.

Surgical Clinic.
Drs. J. E. Briggs, W. F. Wesselhoeft, T. E. Chandler, C. T. Howard, C. Crane, H. J. Lee. One-half hour demonstrations.

Nose and Throat Clinic.
Drs. Conrad Smith, E. R. Johnson, C. W. Bush. Tonsillectomy by the La Force method.

Orthopedic Clinic.
Drs. A. G. Howard, H. J. Fitzsimmons. Ankylosis of the hip. Demonstration of cases. Operations.

Pediatric Clinic.
Drs. O. R. Chadwell, H. C. Petterson. Athrypsia. Presentation of cases.

Obstetrical Clinic (Robinson Memorial Building).
Drs. E. W. Smith, W. A. Ham. Antenatal Clinic. Ward demonstrations of puerperal care.

Free Hospital for Women.

POND AVENUE, BROOKLINE.

Beginning at 7.15 A.M., there will be operations on gynecological cases, both plastic and Abdominal, by Dr. W. P. Graves and Dr. F. A. Pemberton.

Infants' Hospital.

55 VAN DYKE STREET, BOSTON.

There will be a ward visit and medical clinic at 10.30 A.M.

Children's Hospital.

LONGWOOD AVENUE, BOSTON.

There will be clinics and operations on the Surgical Service and ward visits on the Medical Service, at 10 A.M.

Psychopathic Hospital.

74 FENWOOD ROAD, BOSTON.

At nine o'clock Dr. Solomon's clinic for the treatment of neurosyphilis. At ten o'clock a ward round of the Hospital, with demonstration of the major types of psychoses.

Carney Hospital.

SOUTH BOSTON.

There will be clinics and operations on the Surgical Service and ward visits on the Medical Service, at 10 A.M.

Boston Lying-in Hospital.

24 MCLEAN STREET, BOSTON.

There will be a ward visit at ten o'clock, with a probability of two Caesarean operations.

ANNUAL MEETING OF THE SUPERVISORS.

JOHN WARE HALL, 11.30 O'CLOCK

TUESDAY NOON

ANNUAL MEETING OF THE COUNCIL

JOHN WARE HALL

TUESDAY AFTERNOON

MEETING OF THE SECTION OF MEDICINE

SPRAGUE HALL, 2.30 O'CLOCK

Officers of the Section of Medicine

F. Van Nüys, M.D., Weston, *Chairman.*
Lewis Webb Hill, M.D., Boston, *Secretary.*

1. **"The Differential Diagnosis and Treatment of the Hemorrhagic Diseases."**
   Ralph C. Larrabee, M.D., Boston.
   Discussion opened by Thomas E. Buckman, M.D., Boston.
2. **"The Use of the Quartz Light in Dermatology."**
   E. Lawrence Oliver, M.D., Boston.
   Discussion opened by Loretta J. Cummins, M.D., Boston; and Harvey P. Towle, M.D., Boston.
3. **"Observations upon Ductless Gland Therapy."**
   Charles H. Lawrence, M.D., Boston.
   Discussion opened by Louis M. Spear, M.D., Boston.
4. **"Observations upon Diabetics of Various Types under the Present Methods of Treatment."**
   F. Gorham Brigham, M.D., Boston.
   Discussion opened by Elliott P. Joslin, M.D., Boston.
5. **"The Specific Treatment of Respiratory Infections."**
   George P. Sanborn, M.D., Boston.
   Discussion opened by Lesley H. Spooner, M.D., Boston.

TUESDAY AFTERNOON

MEETING OF THE SECTION OF SURGERY

JOHN WARE HALL, 2.30 O'CLOCK

Officers of the Section of Surgery

R. B. Greenough, M.D., Boston, *Chairman.*
I. J. Walker, M.D., Allston, *Secretary.*

1. **"Multiple Resections of the Small Intestines."**
   Ernest L. Hunt, M.D., Worcester.
   Discussion: Homer Gage, M.D., Worcester; F. H. Washburn, M.D., Holden.
2. **"Results of Cholecystectomy with Special Reference to Dilatation of the Common Duct."**

John Homans, M.D., Boston.
Discussion: Fred B. Lund, M.D., Boston; George W. W. Brewster, M.D., Boston.

3. **"Acute Intestinal Obstruction: A Study of a Second Series of Cases from the Massachusetts General Hospital."**
Edward P. Richardson, M.D., Boston.
Discussion: Charles L. Scudder, M.D., Boston; Ralph H. Seelye, M.D., Springfield; Peer P. Johnson, M.D., Beverly.

4. **"Cancer. Factors Entering into the Delay in Its Surgical Treatment."**
Channing C. Simmons, M.D., Boston, and Ernest M. Daland, M.D., Allston.
Discussion: Edward Reynolds, M.D., Boston; Philemon E. Truesdale, M.D., Fall River.

TUESDAY AFTERNOON

MEETING OF THE SECTION OF TUBERCULOSIS

REAR UPPER HALL, 2.30 O'CLOCK

Officers of the Section of Tuberculosis

H. D. Chadwick, M.D., Westfield, *Chairman.*
E. O. Otis, M.D., Boston, *Secretary.*

1. **"The Value of a County Tuberculosis Survey with Clinics."**
Miss Bernice M. Billings, Director of Public Health Nursing, American Red Cross.
Discussion opened by A. K. Stone, M.D., Framingham Center, Late chairman of trustees of Massachusetts Hospitals for Consumptives.

2. **"A Plea for a Department of Tuberculosis in Medical Schools."**
W. J. Gallivan, M.D., Boston, Director of the Department of Tuberculosis, Massachusetts State Department of Health.
Discussion opened by John B. Hawes, 2d, M.D., Boston, of the Tuberculosis Department, Massachusetts General Hospital.

3. **"Itinerant Consultation Service."**
H. S. Wagner, M.D., Pocasset, Superintendent of the Barnstable County Infirmary.
Discussion opened by P. Challis Bartlett, M.D., Newton Highlands, Chief Medical Examiner of the Community Health and Tuberculosis Demonstration, Framingham.

4. **"Occupational Therapy for the Tuberculous."**
F. H. Hunt, M.D., Mattapan, Resident Physician, Boston Consumptives' Hospital.
Discussion by Vincent Y. Bowditch, M.D., Boston, Director of the Sharon Sanatorium; Dr. H. A. Pattison, Medical Field Secretary of the National Tuberculosis Association; and Dr. Bayard T. Crane, Rutland, Supt. of the Central New England Sanatorium and of the Industrial Colony of the Rutland Private Sanatorium Association.

5. **"Report on Nutrition Clinics in Tuberculosis Work."**
Dr. William R. P. Emerson, Boston.

TUESDAY EVENING

THE SHATTUCK LECTURE

JOHN WARE HALL, 8.00 O'CLOCK

By Allan J. McLaughlin, M.D., Assistant Surgeon-General, United States Public Health Service, Washington, D. C.
Subject: "Influenza."

After the lecture light refreshments will be served in the Supper Room.

JUNE 9, 1920

WEDNESDAY, MORNING

ONE HUNDRED AND THIRTY-NINTH ANNIVERSARY

JOHN WARE HALL, 9.30 O'CLOCK

Business of the Annual Meeting.
Including consideration of the revised By-Laws and Code of Ethics, a draft of which was sent to every Fellow with the official program.

The following papers will be presented:

1. **"Preventive Medicine and Hygiene in its Relation to Schools."**
Frank S. Churchill, M.D., Milton.

2. **"Preventive Medicine and Hygiene in its Relation to Colleges."**
Roger I. Lee, M.D., Cambridge.

3. **"The General Management of Health in Industry."**
W. Irving Clark, Jr., M.D., Worcester.

4. **"The Control of Venereal Disease."**
George Gilbert Smith, M.D., Boston.

5. **"Mental Hygiene."**
Walter E. Fernald, M.D., Waverley.

WEDNESDAY NOON

JOHN WARE HALL

The Annual Discourse will be delivered by Hugh Cabot, M.D., Professor of Surgery at the University of Michigan, Ann Arbor, Michigan. Subject: "Health Insurance, State Medicine or What?"

WEDNESDAY AFTERNOON

MEETING OF THE SECTION OF HOSPITAL ADMINISTRATION

JOHN WARE HALL, 2.30 O'CLOCK

Officers of the Section of Hospital Administration

John T. Bottomley, M.D., Boston, *Chairman.*
Stephen Rushmore, M.D., Boston, *Secretary.*

1. **"What Should be the Attitude of the State toward Hospital Standardization?"**
Michael F. Fallon, M.D., Worcester, Member of State Board of Registration in Medicine.
Discussion opened by W. P. Bowers, M.D., Clinton.

2. **Some Practical Hospital Problems Encountered in an Industrial Community."**
E. MacD. Stanton, M.D., Schenectady, New York.
Discussion opened by C. E. Mongan, M.D., Somerville.

3. **"How Can the Shortage of Nurses be Met?"**
Joseph B. Howland, M.D., Boston, Superintendent Peter Bent Brigham Hospital.
Discussion opened by F. A. Washburn, M.D., Boston.

WEDNESDAY AFTERNOON

MEETING OF THE SECTION OF PEDIATRICS

SPRAGUE HALL, 2.30 O'CLOCK

Officers of the Section of Pediatrics

John Lovett Morse, M.D., Boston, *Chairman.*
J. Herbert Young, M.D., Newton, *Secretary.*

1. **"The Importance of Water in Disease."**
   Dr. Fritz B. Talbot, M.D., Boston.
   Discussion opened by William W. Howell, M.D., West Roxbury.
2. **"Cause and Prevention of Over-stimulation of the Modern American Child."**
   Erik St. J. Johnson, M.D., New Bedford.
   Discussion opened by L. E. Emerson, M.D., Cambridge.
3. **"The Significance of Meningeal Symptoms."**
   A. C. Eastman, M.D., Springfield.
   Discussion opened by John Jenks Thomas, M.D., Boston.
4. **"Parental Responsibility."**
   Henry I. Bowditch, M.D., Boston.
   Discussion opened by Maynard Ladd, M.D., Boston.

WEDNESDAY EVENING

6.30 O'CLOCK

The **Annual Dinner** will be served at the American House, 56 Hanover Street, Boston, (Telephone Haymarket 4740) at 6.30 o'clock promptly. Dress suits not necessary. The tickets will be $2.50, and may be bought either at the Bureau of Information during Tuesday and Wednesday, or at the hotel just before the dinner.

After the speaking the Entertainment Committee of the Norfolk District will present a short play entitled:

BREAKING INTO THE ARMY
or
IT'S A GREAT LIFE IF YOU DON'T WEAKEN.

Fellows desiring to sit together in groups will please send their names to the chairman of the Committee of Arrangements, and the proper reservations will be made.

It is necessary that the chairman of the Committee know beforehand the approximate number of those who will attend the dinner, and for that purpose the reply postal card which was enclosed with the program should be mailed at once. His name and address are: Dr. R. H. Miller, 434 Marlborough Street, Boston 17, Mass.

Please notice the change in the time of the dinner from 7.00 o'clock to 6.30 o'clock.

Correspondence.

MEDICAL DEFENSE IN NEW YORK.

Mr. Editor:

The following data relating to the Medical Defense Act of the Medical Society of the State of New York cannot fail to be of interest to some of your readers. The data are obtained from the annual report of the society for 1919 and from Mr. James Taylor Lewis, the accomplished counsel of the Society.

During the twenty years from December, 1899, to December, 1919, eight hundred and eleven cases of alleged malpractice have come before Mr. Lewis for consideration. Of this number 401 cases have been actually disposed of in court. The remainder have been abandoned, or are still pending. The number of verdicts for the plaintiffs were eight. "Of these, four were reversed on appeal, one other is now on appeal to the Appellate Division of our First Department and another awaits the argument of a motion to set aside the verdict." This leaves only two cases as having been finally decided in favor of the plaintiffs.

"During these 20 years claims against the defendants have aggregated upwards of twelve million dollars. There has been actually paid to plaintiffs less than six thousand dollars. Two cases have been settled with my consent; I am informed that three others have been settled without my consent."

The foregoing facts are a striking commentary on the character of the charges brought against the defendant physicians. They also illustrate the fact that justice is still to be obtained in our courts. The skill of the counsel and the fidelity of the experts are worthy of high commendation. In only two instances was Mr. Lewis ever "asked by a member of the State Society where he was to get his money for testifying on behalf of a brother practitioner."

It is worthy of note that of the 39 cases brought before Mr. Lewis in 1919, five were for cases in which it was alleged that some material was left behind after an operation.

GEORGE W. GAY, M.D.

Boston, May 6, 1920.

NOTICE.

MASSACHUSETTS GENERAL HOSPITAL.—Clinical meeting of the Out-Patient Department Medical Staff in the Out-Patient Department Amphitheatre on Wednesday, June 2, 1920, at 8 P.M.

Program: "The Practical X-Ray Value of Pneumoperitoneum."

Discussion by Dr. George W. Holmes.

Dr. Charles L. Scudder presiding.

F. A. WASHBURN, *Resident Physician.*

A CORRECTION.

In the issue of the JOURNAL for April 15, in a reprint of an article entitled "Child Health Conditions in Boston," Dr. Robert D. Curtis was quoted as discussing Boston's mortality rate for 1919 as shown in the *Public Health Index*. Dr Curtis has disclaimed responsibility for any statements in that article, since he has seen no figures bearing on the subject.

RECENT DEATHS.

DR. JOSEPH L. SANBORN died on May 17, 1920, at his home in North Amherst, at the age of fifty-four years. Dr. Sanborn was born in Lynn and was graduated from the Atlanta Medical School. He is survived by his widow, one son, and two sisters.

DR. J. WILLIAM BOSS, one of the most widely known physicians of Beverly, died at his home, 366 Cabot street, in that city, May 11, 1920, after several days' illness of heart disease, at the age of 53 years. He served during the war in the medical corps, with the rank of captain, the greater part of his enlistment term at Camp Upton. He later resumed his practice in Beverly. He was a native of Gloucester. He received his medical degree at the University of Pennsylvania and took post-graduate courses in medicine in both France and England. He first practised at Philadelphia, then at Peabody and, since 1897, at Beverly. He had served the County of Essex on the state department of medical examiners and for many years was chairman of the Beverly board of health. He was unmarried.